Influenza in Melbourne, Australia, 1969

by A. A. FERRIS [a]

Some information on Hong Kong influenza as seen in our unit in Melbourne during the Australian winter of 1969 is outlined below. This unit is an infectious diseases centre, rather like the National Communicable Disease Center in miniature, and it receives patients from a metropolitan population of over 2 million.

Although the Hong Kong virus reached Australia in September 1968, we had no evidence of its presence in Melbourne until February 1969, when several isolates were made from overseas travellers. No epidemic occurred until the winter and in mid-June we began to isolate virus. Most isolates were obtained during July, the peak of the epidemic occurred about 20 July, and the epidemic was over by mid-August.

Over this 2-month period a diagnosis of influenza was virologically confirmed in 96 patients—in 84 patients by virus isolation with or without serological evidence and in 12 patients by serological evidence alone. Since we made no attempt to investigate "influenza" as diagnosed on clinical grounds by general practitioners, our data chiefly concern patients with severe and complicated cases who came to the hospital, plus some members of the laboratory and hospital staff who reported to staff clinics.

This epidemic had 4 main points of interest, as follows:

(1) Fewer hospital beds were required for patients with pneumonias, croup, etc. in 1969 when the Hong Kong virus was circulating than in the winter of 1968 when A2/Japan/68 was the epidemic virus. It also seems clear that there was less absenteeism in industry in 1969 than in 1968.

(2) Of our 96 patients with proved influenza, 28 (about 29%) had received the currently available vaccine this year. Quite a lot of vaccine was used in the general population, but precise figures are difficult to obtain. However, 40% of the volunteer blood bank donors aged 20–50 years, who are not a priority group for vaccination, had been vaccinated this year.

(3) There were 6 deaths among our 96 patients. One of these patients, who was fully vaccinated, should perhaps be excluded—a 19-year-old girl who had Marfan's syndrome and died of a ruptured thoracic aorta. Another death was that of an elderly cardiac patient who was also fully vaccinated. The remaining 4 patients, who were all healthy middle-aged people and none of whom was vaccinated, died of classical influenza pneumonitis—large numbers of viruses in the lungs and no evidence of secondary infection. These were the only cases of this kind that I have seen. We had none at Fairfield in 1957, when those who died had secondary infection, mostly with antibiotic-resistant staphylococci.

(4) In an attempt to explain the apparent anomaly of a few severe cases, some deaths attributable solely to influenza, and an over-all low morbidity, we examined a small sample (100) of non-vaccinated blood bank donors for neutralizing antibody. In a screening test using monkey kidney tissue, a 1 : 4 dilution of serum, and 100 $TCID_{50}$ of Hong Kong virus, we found antibody in 52% of the donors. This figure is reasonably close to the 45% we found by means of the same technique in a much larger sample of blood bank donors after the 1957 A2 epidemic. It is difficult to draw conclusions from our small sample this year, but perhaps there was quite a lot of very mild and subclinical Hong Kong influenza in Melbourne during the winter of 1969.

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Hong Kong Influenza in Madras State, India, 1968

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The Influenza Centre at the Pasteur Institute, Coonoor, was informed by the Port Health Officer, Madras, that the ship *S.S. Rajula* with influenza on board was expected to reach Madras on 8 September 1968 from Singapore. When the ship arrived at Madras, 16 persons with suspected influenza were

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on board. From 7 of these cases influenza virus similar to A2/Hong Kong/68 was isolated.

Only 8 cases of typical influenza were reported in the hospitals in the city of Madras on 9 September 1968. The number increased rapidly day by day, reaching 7661 on 17 September. Subsequently it declined to 68 on 31 October. During the period 9 September to 31 October, 84 511 patients were treated in the hospitals in Madras City, which has a population of 2 million. The attack rate was therefore 4.2%. It is estimated that an equal number of persons were treated by the private practitioners in the city, thus giving an attack rate of 8.4%.

Subsequently, the epidemic spread to different areas in Madras State. Cases were reported in Chingleput, Conjeevaram, Pondicherry, Vellore, Coimbatore, and the Nilgiris during the latter part of September. The epidemic spread to Madurai, Tirupur, Karur, Trichy, Tanjore, and Palni during the first half of October. Tirunelveli, Ramnad and Salem were affected during the middle and latter part of October. Influenza activity declined during the second half of November and December in Madras State.

The isolation of 2 strains of Hong Kong virus, one at Coonoor on 29 August and the other at Ootacamund, about 350 miles (560 km) from Madras on 31 August indicated that the virus had been seeded even before the arrival of the *S.S. Rajula* from Singapore on 8 September 1968.

The main epidemic spread through the Indian subcontinent within 20 weeks. In each area the pattern was one of sweeping spread through the most crowded cities followed by a relatively slow spread across villages and towns.

All age-groups were involved, although the manifestation of the disease appeared to be more severe among children.

Persons who had an attack of Asian influenza in 1957 and those who had an attack of proved A2 influenza subsequently generally escaped infection by the Hong Kong virus.

All patients complained of headache, generalized aches and pains, malaise, and fever. Some complained of backache, sore throat, and cough. Very few patients had respiratory complications such as pneumonia and bronchopneumonia. Sputum cultures from such cases showed nonhaemolytic streptococci and staphylococci. Electrocardiographic studies showed evidence of myocardial inflammation. Gastrointestinal symptoms such as vomiting, jaundice, and hiccup were rare compared with the epidemic of 1957. A few patients with clinical signs of encephalitis or myelitis and meningism associated with mild disorientation were also encountered. On the whole the disease was relatively mild with few complications.

From Madras City and other towns in the State, 146 strains of influenza virus were isolated from 29 August to 31 December 1968. All of them were similar to A2/Hong Kong/68 virus. Throughout this period, when over 442 throat gargles were processed, not one strain of type B virus was isolated, indicating the absence of influenza virus B infection.

The 1968 Influenza Outbreak in Thailand

by CHANINTHORN SUVONGSE[a]

About 1 month after the outbreak of influenza in Hong Kong on 13 July 1968,[b] febrile illness was reported among US troops at the US Air Force Base, Korat Province, in the north-eastern part of Thailand. Within 3 weeks the number of cases reached epidemic level. The US component of the SEATO Medical Research Laboratory and the Faculty of Public Health, Mahidol University, made a detailed study among US troops in that area. Following the outbreak, the disease seemed to spread rapidly to Bangkok and various other provinces. The epidemic began in August, reached its peak in October, and declined during the last part of November. In general, clinical symptoms were mild and the incidence of complications was relatively low. No deaths definitely attributable to influenza were reported.

In Bangkok health authorities were alerted to-

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[b] Thong-Charoen, P. et al. (1969) *J. med. Ass. Thailand*, 52, No. 9.